

## EAST Search History

| Ref # | Hits | Search Query  | DBs                                    | Default Operator | Plurals | Time Stamp       |
|-------|------|---|--|------------------|---------|------------------|
| S1    | 1    | "6110672".pn.   | US-PGPUB;<br>USPAT                     | OR               | ON      | 2006/08/09 10:37 |
| S2    | 2081 | (scn3a or (type adj III)) and sodium and channel  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR               | ON      | 2006/08/09 10:38 |
| S3    | 1307 | (scn3a or (type adj III)) and sodium and channel and human and brain                                      | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR               | ON      | 2006/08/09 10:38 |
| S4    | 1088 | (scn3a or (type adj III)) and sodium and channel and human and brain and (genomic or cdna)                | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR               | ON      | 2006/08/09 10:39 |
| S5    | 60   | (scn3a or (type adj III)) and sodium and channel and human and brain and (genomic or cdna) and @py<"2001" | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR               | ON      | 2006/08/09 11:00 |
| S6    | 27   | S4 and (chen.in. or dale.in. or romanos.in. or whitaker.in. or xie.in. or clare.in.)                      | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR               | ON      | 2006/08/09 11:01 |

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OM nucleic - nucleic search, using sw model

Run on: August 5, 2006, 08:00:38 ; Search time 1488 Seconds  
 (without alignments)  
 11458.026 Million cell updates/sec

Title: US-10-664-422A-65  
 Perfect score: 9110.8  
 Sequence: 1 accatagagtgaatctcaga.....aaattatataaggctaa 9112

Scoring table: IDENTITY\_NUC  
 Gapop 10.0 , Gapext 1.0

Searched: 1403666 seqs, 935554401 residues

Total number of hits satisfying chosen parameters: 2807332

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : Issued\_Patents\_NA:  
 1: /EMC\_Celerra\_SIDS3/ptodata/2/ina/1\_COMB.seq:\*
 2: /EMC\_Celerra\_SIDS3/ptodata/2/ina/5\_COMB.seq:\*
 3: /EMC\_Celerra\_SIDS3/ptodata/2/ina/6A\_COMB.seq:\*
 4: /EMC\_Celerra\_SIDS3/ptodata/2/ina/6B\_COMB.seq:\*
 5: /EMC\_Celerra\_SIDS3/ptodata/2/ina/7\_COMB.seq:\*
 6: /EMC\_Celerra\_SIDS3/ptodata/2/ina/H\_COMB.seq:\*
 7: /EMC\_Celerra\_SIDS3/ptodata/2/ina/PCTUS\_COMB.seq:\*
 8: /EMC\_Celerra\_SIDS3/ptodata/2/ina/PP\_COMB.seq:\*
 9: /EMC\_Celerra\_SIDS3/ptodata/2/ina/RE\_COMB.seq:\*
 10: /EMC\_Celerra\_SIDS3/ptodata/2/ina/backfiles1.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result<br>No. | Score  | Query |        |                      | Description       |
|---------------|--------|-------|--------|----------------------|-------------------|
|               |        | Match | Length | DB ID                |                   |
| 1             | 5033.4 | 55.2  | 5106   | 3 US-09-976-594-1104 | Sequence 1104, Ap |
| 2             | 4203   | 46.1  | 6332   | 3 US-09-949-016-5117 | Sequence 5117, Ap |
| 3             | 3419   | 37.5  | 6348   | 3 US-09-976-594-756  | Sequence 756, App |
| 4             | 3419   | 37.5  | 6348   | 3 US-09-919-039-366  | Sequence 366, App |
| 5             | 3419   | 37.5  | 6371   | 3 US-08-836-325-13   | Sequence 13, Appl |
| 6             | 3419   | 37.5  | 6371   | 3 US-09-457-571-13   | Sequence 13, Appl |
| 7             | 3386   | 37.2  | 6404   | 3 US-08-836-325-14   | Sequence 14, Appl |
| 8             | 3386   | 37.2  | 6404   | 3 US-09-457-571-14   | Sequence 14, Appl |
| 9             | 3164.6 | 34.7  | 6452   | 3 US-08-836-325-9    | Sequence 9, Appli |
| 10            | 3164.6 | 34.7  | 6452   | 3 US-09-457-571-9    | Sequence 9, Appli |
| 11            | 2642.4 | 29.0  | 6882   | 3 US-09-949-016-4205 | Sequence 4205, Ap |
| 12            | 2640.4 | 29.0  | 6556   | 3 US-09-024-020B-7   | Sequence 7, Appli |

|    |        |      |       |   |                     |                    |
|----|--------|------|-------|---|---------------------|--------------------|
| 13 | 2640.4 | 29.0 | 6556  | 3 | US-09-425-043-7     | Sequence 7, Appli  |
| 14 | 2633.2 | 28.9 | 5977  | 3 | US-09-024-020B-1    | Sequence 1, Appli  |
| 15 | 2633.2 | 28.9 | 5977  | 3 | US-09-425-043-1     | Sequence 1, Appli  |
| 16 | 2610.4 | 28.7 | 6586  | 3 | US-09-024-020B-43   | Sequence 43, Appli |
| 17 | 2610.4 | 28.7 | 6586  | 3 | US-09-425-043-43    | Sequence 43, Appli |
| 18 | 2604.8 | 28.6 | 6007  | 3 | US-09-024-020B-2    | Sequence 2, Appli  |
| 19 | 2604.8 | 28.6 | 6007  | 3 | US-09-425-043-2     | Sequence 2, Appli  |
| 20 | 2570.4 | 28.2 | 6826  | 3 | US-09-024-020B-8    | Sequence 8, Appli  |
| 21 | 2570.4 | 28.2 | 6826  | 3 | US-09-425-043-8     | Sequence 8, Appli  |
| 22 | 1921.2 | 21.1 | 6048  | 3 | US-09-514-907A-1    | Sequence 1, Appli  |
| 23 | 1921.2 | 21.1 | 6048  | 3 | US-09-896-994-1     | Sequence 1, Appli  |
| 24 | 1919.6 | 21.1 | 6048  | 3 | US-09-634-920-3     | Sequence 3, Appli  |
| 25 | 1919.6 | 21.1 | 6048  | 3 | US-09-840-125-3     | Sequence 3, Appli  |
| 26 | 1812.6 | 19.9 | 3033  | 3 | US-08-836-325-1     | Sequence 1, Appli  |
| 27 | 1812.6 | 19.9 | 3033  | 3 | US-09-457-571-1     | Sequence 1, Appli  |
| 28 | 1701.4 | 18.7 | 5874  | 3 | US-08-843-417-9     | Sequence 9, Appli  |
| 29 | 1701.4 | 18.7 | 5874  | 3 | US-09-527-013-9     | Sequence 9, Appli  |
| 30 | 1620.8 | 17.8 | 6527  | 3 | US-08-669-656A-7    | Sequence 7, Appli  |
| 31 | 1616.2 | 17.7 | 6344  | 3 | US-08-843-417-1     | Sequence 1, Appli  |
| 32 | 1616.2 | 17.7 | 6344  | 3 | US-09-527-013-1     | Sequence 1, Appli  |
| 33 | 1612.8 | 17.7 | 6524  | 3 | US-08-669-656A-1    | Sequence 1, Appli  |
| 34 | 1360.6 | 14.9 | 5482  | 3 | US-09-920-653B-2    | Sequence 2, Appli  |
| 35 | 1307.2 | 14.3 | 7052  | 3 | US-08-669-656A-5    | Sequence 5, Appli  |
| 36 | 1165.4 | 12.8 | 2490  | 3 | US-09-976-594-361   | Sequence 361, App  |
| 37 | 1132.8 | 12.4 | 99830 | 3 | US-09-949-016-16859 | Sequence 16859, A  |
| 38 | 1107.4 | 12.2 | 5822  | 3 | US-09-354-147C-4    | Sequence 4, Appli  |
| 39 | 1091.8 | 12.0 | 5860  | 3 | US-09-354-147C-41   | Sequence 41, Appli |
| 40 | 1084.8 | 11.9 | 5875  | 3 | US-09-354-147C-1    | Sequence 1, Appli  |
| 41 | 908.8  | 10.0 | 6519  | 2 | US-08-808-793-24    | Sequence 24, Appli |
| 42 | 904.6  | 9.9  | 930   | 3 | US-08-605-284B-21   | Sequence 21, Appli |
| 43 | 893.8  | 9.8  | 930   | 3 | US-08-605-284B-1    | Sequence 1, Appli  |
| 44 | 892.2  | 9.8  | 930   | 3 | US-08-605-284B-3    | Sequence 3, Appli  |
| 45 | 855.4  | 9.4  | 930   | 3 | US-08-605-284B-2    | Sequence 2, Appli  |

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OM nucleic - nucleic search, using sw model

Run on: August 5, 2006, 08:03:03 ; Search time 4993 Seconds  
 (without alignments)  
 12724.039 Million cell updates/sec

Title: US-10-664-422A-65

Perfect score: 9110.8

Sequence: 1 accatagagtgaatctcaga.....aaattatataaggctaa 9112

Scoring table: IDENTITY\_NUC  
 Gapop 10.0 , Gapext 1.0

Searched: 5244920 seqs, 3486124231 residues

Total number of hits satisfying chosen parameters: 10489840

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : N\_Geneseq\_8:\*  
 1: geneseqn1980s:\*  
 2: geneseqn1990s:\*  
 3: geneseqn2000s:\*  
 4: geneseqn2001as:\*  
 5: geneseqn2001bs:\*  
 6: geneseqn2002as:\*  
 7: geneseqn2002bs:\*  
 8: geneseqn2003as:\*  
 9: geneseqn2003bs:\*  
 10: geneseqn2003cs:\*  
 11: geneseqn2003ds:\*  
 12: geneseqn2004as:\*  
 13: geneseqn2004bs:\*  
 14: geneseqn2005s:\*  
 15: geneseqn2006s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result | Query  |       |        |             | Description        |
|--------|--------|-------|--------|-------------|--------------------|
| No.    | Score  | Match | Length | DB ID       |                    |
| <hr/>  |        |       |        |             |                    |
| 1      | 9110.8 | 100.0 | 9112   | 5 AAH55823  | Aah55823 Human adu |
| 2      | 9075.6 | 99.6  | 9112   | 5 AAH55824  | Aah55824 Human neo |
| 3      | 8723.2 | 95.7  | 8976   | 12 ADL06499 | Adl06499 Human tum |
| 4      | 8723.2 | 95.7  | 8976   | 14 AEA44249 | Aea44249 Human SCN |
| 5      | 8563   | 94.0  | 9120   | 12 ADK81761 | Adk81761 Human Nav |
| 6      | 8563   | 94.0  | 9123   | 6 ABL39690  | Ab139690 Human sod |
| 7      | 8563   | 94.0  | 9123   | 13 ADP79544 | Adp79544 Human sod |

|    |        |      |      |    |          |                    |
|----|--------|------|------|----|----------|--------------------|
| 8  | 8563   | 94.0 | 9123 | 14 | AEA44247 | Aea44247 Human sod |
| 9  | 6395   | 70.2 | 6599 | 13 | ADP79542 | Adp79542 Human sod |
| 10 | 6393.4 | 70.2 | 6599 | 10 | ADB78650 | Adb78650 Human ion |
| 11 | 6393.4 | 70.2 | 6599 | 10 | ADB78648 | Adb78648 Human ion |
| 12 | 6393.4 | 70.2 | 6599 | 10 | ADB78647 | Adb78647 Human ion |
| 13 | 6379   | 70.0 | 6596 | 10 | ADB78646 | Adb78646 Human ion |
| 14 | 5694.2 | 62.5 | 6057 | 13 | ADP79540 | Adp79540 Human sod |
| 15 | 5657.8 | 62.1 | 6003 | 14 | ADV42845 | Adv42845 Human psy |
| 16 | 5169.8 | 56.7 | 6822 | 6  | ABK63697 | Abk63697 Rat seque |
| 17 | 5169.8 | 56.7 | 6822 | 14 | AEA44251 | Aea44251 Rat sodiu |
| 18 | 5033.4 | 55.2 | 5106 | 12 | ADL13375 | Adl13375 Human ste |
| 19 | 4778   | 52.4 | 6071 | 14 | AEA44246 | Aea44246 Murine so |
| 20 | 4738.8 | 52.0 | 5940 | 14 | AEA44244 | Aea44244 Murine so |
| 21 | 4279.8 | 47.0 | 8292 | 10 | ADC46961 | Adc46961 Human SCN |
| 22 | 4271.2 | 46.9 | 7028 | 6  | ABZ35519 | Abz35519 Human gen |
| 23 | 4271.2 | 46.9 | 8349 | 5  | AAH55793 | Aah55793 Human adu |
| 24 | 4271.2 | 46.9 | 8349 | 5  | AAH55794 | Aah55794 Human neo |
| 25 | 4215.4 | 46.3 | 6328 | 10 | ADB78643 | Adb78643 Human ion |
| 26 | 4213.8 | 46.3 | 6328 | 10 | ADB78644 | Adb78644 Human ion |
| 27 | 4213.8 | 46.3 | 6328 | 10 | ADB78642 | Adb78642 Human ion |
| 28 | 4213.8 | 46.3 | 6328 | 10 | ADA19378 | Ada19378 Human ins |
| 29 | 4213.8 | 46.3 | 6328 | 13 | ADS52206 | Ads52206 Human sod |
| 30 | 4213.8 | 46.3 | 6328 | 14 | ADY27081 | Ady27081 Human SCN |
| 31 | 4213.8 | 46.3 | 6328 | 14 | ADY27080 | Ady27080 Human SCN |
| 32 | 4213.8 | 46.3 | 6328 | 14 | ADY27078 | Ady27078 Human SCN |
| 33 | 4213.8 | 46.3 | 6328 | 14 | ADY27079 | Ady27079 Human SCN |
| 34 | 4213.8 | 46.3 | 6328 | 14 | ADY27076 | Ady27076 Human SCN |
| 35 | 4213.8 | 46.3 | 6328 | 14 | ADY27077 | Ady27077 Human SCN |
| 36 | 4213.8 | 46.3 | 6328 | 14 | ADY27075 | Ady27075 Human SCN |
| 37 | 4108.8 | 45.1 | 6018 | 6  | ABQ79201 | Abq79201 Human GEF |
| 38 | 4108.8 | 45.1 | 6018 | 14 | ADV42844 | Adv42844 Human psy |
| 39 | 4084   | 44.8 | 4153 | 12 | ADL06498 | Adl06498 Human tum |
| 40 | 3987.2 | 43.8 | 8131 | 6  | ABL39689 | Ab139689 Human sod |
| 41 | 3987.2 | 43.8 | 8131 | 13 | ADS16301 | Ads16301 Human vol |
| 42 | 3955   | 43.4 | 8381 | 6  | ABK98844 | Abk98844 Human sod |
| 43 | 3953.4 | 43.4 | 8381 | 6  | ABK98846 | Abk98846 Human sod |
| 44 | 3953.4 | 43.4 | 8381 | 6  | ABK98924 | Abk98924 Human sod |
| 45 | 3953.4 | 43.4 | 8381 | 6  | ABK98847 | Abk98847 Human sod |

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OM nucleic - nucleic search, using sw model

Run on: August 5, 2006, 08:05:13 ; Search time 9584 Seconds  
 (without alignments)  
 11682.485 Million cell updates/sec

Title: US-10-664-422A-65  
 Perfect score: 9110.8  
 Sequence: 1 accatagagtgaatctcaga.....aaattatataaggtaaa 9112

Scoring table: IDENTITY\_NUC  
 Gapop 10.0 , Gapext 1.0

Searched: 18892170 seqs, 6143817638 residues

Total number of hits satisfying chosen parameters: 37784340

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : Published\_Applications\_NA\_Main:  
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 5: /EMC\_Celerra\_SIDS3/ptodata/2/pubpna/US09C\_PUBCOMB.seq:\*
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 9: /EMC\_Celerra\_SIDS3/ptodata/2/pubpna/US10D\_PUBCOMB.seq:\*
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 11: /EMC\_Celerra\_SIDS3/ptodata/2/pubpna/US10F\_PUBCOMB.seq:\*
 12: /EMC\_Celerra\_SIDS3/ptodata/2/pubpna/US10G\_PUBCOMB.seq:\*
 13: /EMC\_Celerra\_SIDS3/ptodata/2/pubpna/US11A\_PUBCOMB.seq:\*
 14: /EMC\_Celerra\_SIDS3/ptodata/2/pubpna/US11B\_PUBCOMB.seq:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result | Query  |       |        |                    | Description       |
|--------|--------|-------|--------|--------------------|-------------------|
| No.    | Score  | Match | Length | DB ID              |                   |
| <hr/>  |        |       |        |                    |                   |
| 1      | 9110.8 | 100.0 | 9112   | 8 US-10-664-422-65 | Sequence 65, Appl |
| 2      | 9110.8 | 100.0 | 9112   | 8 US-10-664-423-65 | Sequence 65, Appl |
| 3      | 9110.8 | 100.0 | 9112   | 9 US-10-664-603-65 | Sequence 65, Appl |
| 4      | 9075.6 | 99.6  | 9112   | 8 US-10-664-422-66 | Sequence 66, Appl |
| 5      | 9075.6 | 99.6  | 9112   | 8 US-10-664-423-66 | Sequence 66, Appl |
| 6      | 9075.6 | 99.6  | 9112   | 9 US-10-664-603-66 | Sequence 66, Appl |

|    |        |      |      |    |                     |                   |
|----|--------|------|------|----|---------------------|-------------------|
| 7  | 8723.2 | 95.7 | 8976 | 9  | US-10-643-795A-79   | Sequence 79, Appl |
| 8  | 8723.2 | 95.7 | 8976 | 10 | US-10-948-518-79    | Sequence 79, Appl |
| 9  | 8723.2 | 95.7 | 8976 | 12 | US-10-960-414-327   | Sequence 327, App |
| 10 | 6393.4 | 70.2 | 6599 | 10 | US-10-482-834A-18   | Sequence 18, Appl |
| 11 | 6393.4 | 70.2 | 6599 | 10 | US-10-482-834A-19   | Sequence 19, Appl |
| 12 | 6393.4 | 70.2 | 6599 | 10 | US-10-482-834A-21   | Sequence 21, Appl |
| 13 | 6379   | 70.0 | 6596 | 10 | US-10-482-834A-17   | Sequence 17, Appl |
| 14 | 5169.8 | 56.7 | 6822 | 3  | US-09-917-800A-1604 | Sequence 1604, Ap |
| 15 | 5168.2 | 56.7 | 6822 | 16 | US-11-136-527-259   | Sequence 259, App |
| 16 | 4271.2 | 46.9 | 7028 | 7  | US-10-101-510-630   | Sequence 630, App |
| 17 | 4271.2 | 46.9 | 8349 | 8  | US-10-664-422-33    | Sequence 33, Appl |
| 18 | 4271.2 | 46.9 | 8349 | 8  | US-10-664-422-34    | Sequence 34, Appl |
| 19 | 4271.2 | 46.9 | 8349 | 8  | US-10-664-423-33    | Sequence 33, Appl |
| 20 | 4271.2 | 46.9 | 8349 | 8  | US-10-664-423-34    | Sequence 34, Appl |
| 21 | 4271.2 | 46.9 | 8349 | 9  | US-10-664-603-33    | Sequence 33, Appl |
| 22 | 4271.2 | 46.9 | 8349 | 9  | US-10-664-603-34    | Sequence 34, Appl |
| 23 | 4215.4 | 46.3 | 6328 | 10 | US-10-482-834A-14   | Sequence 14, Appl |
| 24 | 4213.8 | 46.3 | 6328 | 6  | US-10-161-803-60    | Sequence 60, Appl |
| 25 | 4213.8 | 46.3 | 6328 | 10 | US-10-482-834A-13   | Sequence 13, Appl |
| 26 | 4213.8 | 46.3 | 6328 | 10 | US-10-482-834A-15   | Sequence 15, Appl |
| 27 | 4084   | 44.8 | 4153 | 9  | US-10-643-795A-78   | Sequence 78, Appl |
| 28 | 4084   | 44.8 | 4153 | 10 | US-10-948-518-78    | Sequence 78, Appl |
| 29 | 3987.2 | 43.8 | 8131 | 9  | US-10-377-139-13    | Sequence 13, Appl |
| 30 | 3955   | 43.4 | 8381 | 8  | US-10-451-126A-7    | Sequence 7, Appli |
| 31 | 3953.4 | 43.4 | 8381 | 8  | US-10-451-126A-9    | Sequence 9, Appli |
| 32 | 3953.4 | 43.4 | 8381 | 8  | US-10-451-126A-11   | Sequence 11, Appl |
| 33 | 3953.4 | 43.4 | 8381 | 8  | US-10-451-126A-89   | Sequence 89, Appl |
| 34 | 3953.4 | 43.4 | 8381 | 9  | US-10-806-899-4     | Sequence 4, Appli |
| 35 | 3951.8 | 43.4 | 8381 | 8  | US-10-451-126A-1    | Sequence 1, Appli |
| 36 | 3951.8 | 43.4 | 8381 | 8  | US-10-451-126A-3    | Sequence 3, Appli |
| 37 | 3951.8 | 43.4 | 8381 | 8  | US-10-451-126A-5    | Sequence 5, Appli |
| 38 | 3951.8 | 43.4 | 8381 | 8  | US-10-451-126A-8    | Sequence 8, Appli |
| 39 | 3951.8 | 43.4 | 8381 | 9  | US-10-806-899-1     | Sequence 1, Appli |
| 40 | 3951.8 | 43.4 | 8381 | 9  | US-10-806-899-2     | Sequence 2, Appli |
| 41 | 3951.8 | 43.4 | 8381 | 9  | US-10-806-899-3     | Sequence 3, Appli |
| 42 | 3951.8 | 43.4 | 8381 | 9  | US-10-806-899-5     | Sequence 5, Appli |
| 43 | 3951.8 | 43.4 | 8381 | 9  | US-10-806-899-6     | Sequence 6, Appli |
| 44 | 3951.8 | 43.4 | 8381 | 9  | US-10-806-899-7     | Sequence 7, Appli |
| 45 | 3951.8 | 43.4 | 8381 | 9  | US-10-806-899-8     | Sequence 8, Appli |

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OM nucleic - nucleic search, using sw model

Run on: August 5, 2006, 08:29:13 ; Search time 1292 Seconds  
 (without alignments)  
 11170.206 Million cell updates/sec

Title: US-10-664-422A-65  
 Perfect score: 9110.8  
 Sequence: 1 accatagagtgaatctcaga.....aaattatataaggctaa 9112

Scoring table: IDENTITY\_NUC  
 Gapop 10.0 , Gapext 1.0

Searched: 2193277 seqs, 791917567 residues

Total number of hits satisfying chosen parameters: 4386554

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : Published\_Applications\_NA\_New:  
 1: /EMC\_Celerra\_SIDS3/ptodata/1/pubpna/US09\_NEW\_PUB.seq:\*
 2: /EMC\_Celerra\_SIDS3/ptodata/1/pubpna/US06\_NEW\_PUB.seq:\*
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 4: /EMC\_Celerra\_SIDS3/ptodata/1/pubpna/US08\_NEW\_PUB.seq:\*
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 9: /EMC\_Celerra\_SIDS3/ptodata/1/pubpna/US60\_NEW\_PUB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result<br>No. | Query<br>Score | %    | Match | Length | DB                   | ID | Description       |
|---------------|----------------|------|-------|--------|----------------------|----|-------------------|
| <hr/>         |                |      |       |        |                      |    |                   |
| 1             | 8563           | 94.0 | 9123  | 8      | US-11-266-748A-56739 |    | Sequence 56739, A |
| 2             | 6393.4         | 70.2 | 6599  | 8      | US-11-263-326-106    |    | Sequence 106, App |
| 3             | 6393.4         | 70.2 | 6599  | 8      | US-11-263-326-107    |    | Sequence 107, App |
| 4             | 6393.4         | 70.2 | 6599  | 8      | US-11-263-326-109    |    | Sequence 109, App |
| 5             | 6379           | 70.0 | 6596  | 8      | US-11-263-326-105    |    | Sequence 105, App |
| 6             | 5657.8         | 62.1 | 6003  | 8      | US-11-313-450-5      |    | Sequence 5, Appli |
| 7             | 4279.8         | 47.0 | 8292  | 6      | US-10-501-814-2      |    | Sequence 2, Appli |
| 8             | 4215.4         | 46.3 | 6328  | 8      | US-11-263-326-102    |    | Sequence 102, App |
| 9             | 4213.8         | 46.3 | 6328  | 8      | US-11-263-326-101    |    | Sequence 101, App |
| 10            | 4213.8         | 46.3 | 6328  | 8      | US-11-263-326-103    |    | Sequence 103, App |
| 11            | 4213.8         | 46.3 | 6328  | 8      | US-11-263-326-146    |    | Sequence 146, App |
| 12            | 4213.8         | 46.3 | 6328  | 8      | US-11-263-326-147    |    | Sequence 147, App |
| 13            | 4213.8         | 46.3 | 6328  | 8      | US-11-263-326-148    |    | Sequence 148, App |

|    |        |      |      |   |                   |                    |
|----|--------|------|------|---|-------------------|--------------------|
| 14 | 4213.8 | 46.3 | 6328 | 8 | US-11-263-326-149 | Sequence 149, App  |
| 15 | 4213.8 | 46.3 | 6328 | 8 | US-11-263-326-150 | Sequence 150, App  |
| 16 | 4213.8 | 46.3 | 6328 | 8 | US-11-263-326-151 | Sequence 151, App  |
| 17 | 4213.8 | 46.3 | 6328 | 8 | US-11-263-326-152 | Sequence 152, App  |
| 18 | 4108.8 | 45.1 | 6018 | 8 | US-11-313-450-3   | Sequence 3, Appli  |
| 19 | 3955   | 43.4 | 8381 | 8 | US-11-263-326-7   | Sequence 7, Appli  |
| 20 | 3953.4 | 43.4 | 8381 | 8 | US-11-263-326-9   | Sequence 9, Appli  |
| 21 | 3953.4 | 43.4 | 8381 | 8 | US-11-263-326-11  | Sequence 11, Appli |
| 22 | 3953.4 | 43.4 | 8381 | 8 | US-11-263-326-143 | Sequence 143, App  |
| 23 | 3953.4 | 43.4 | 8381 | 8 | US-11-263-326-144 | Sequence 144, App  |
| 24 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-1   | Sequence 1, Appli  |
| 25 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-3   | Sequence 3, Appli  |
| 26 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-5   | Sequence 5, Appli  |
| 27 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-8   | Sequence 8, Appli  |
| 28 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-91  | Sequence 91, Appli |
| 29 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-92  | Sequence 92, Appli |
| 30 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-93  | Sequence 93, Appli |
| 31 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-96  | Sequence 96, Appli |
| 32 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-97  | Sequence 97, Appli |
| 33 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-108 | Sequence 108, App  |
| 34 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-136 | Sequence 136, App  |
| 35 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-137 | Sequence 137, App  |
| 36 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-138 | Sequence 138, App  |
| 37 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-139 | Sequence 139, App  |
| 38 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-140 | Sequence 140, App  |
| 39 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-141 | Sequence 141, App  |
| 40 | 3951.8 | 43.4 | 8381 | 8 | US-11-263-326-142 | Sequence 142, App  |
| 41 | 3941.4 | 43.3 | 8380 | 8 | US-11-263-326-89  | Sequence 89, Appli |
| 42 | 3937   | 43.2 | 8377 | 8 | US-11-263-326-95  | Sequence 95, Appli |
| 43 | 3936.4 | 43.2 | 8388 | 8 | US-11-263-326-94  | Sequence 94, Appli |
| 44 | 3924.6 | 43.1 | 8370 | 8 | US-11-263-326-90  | Sequence 90, Appli |
| 45 | 3815.2 | 41.9 | 5997 | 8 | US-11-313-450-1   | Sequence 1, Appli  |

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OM nucleic - nucleic search, using sw model

Run on: June 21, 2006, 11:33:43 ; Search time 49169 Seconds  
 (without alignments)  
 11850.737 Million cell updates/sec

Title: US-10-664-422A-65  
 Perfect score: 9110.8  
 Sequence: 1 accatagagtgaatctcaga.....aaattatataaggctaa 9112

Scoring table: IDENTITY\_NUC  
 Gapop 10.0 , Gapext 1.0

Searched: 6366136 seqs, 31973710525 residues

Total number of hits satisfying chosen parameters: 12732272

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : GenEmbl:  
 1: gb\_env:  
 2: gb\_pat:  
 3: gb\_ph:  
 4: gb\_pl:  
 5: gb\_pr:  
 6: gb\_ro:  
 7: gb\_sts:  
 8: gb\_sy:  
 9: gb\_un:  
 10: gb\_vi:  
 11: gb\_ov:  
 12: gb\_htg:  
 13: gb\_in:  
 14: gb\_om:  
 15: gb\_ba:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result | Query  |       |        |    |           | Description        |
|--------|--------|-------|--------|----|-----------|--------------------|
| No.    | Score  | Match | Length | DB | ID        |                    |
| <hr/>  |        |       |        |    |           |                    |
| 1      | 9110.8 | 100.0 | 9112   | 2  | AX164235  | AX164235 Sequence  |
| 2      | 9075.6 | 99.6  | 9112   | 2  | AX164236  | AX164236 Sequence  |
| 3      | 8723.2 | 95.7  | 8976   | 5  | AF225986  | AF225986 Homo sapi |
| 4      | 8563   | 94.0  | 9123   | 2  | BD094361  | BD094361 Sodium ch |
| 5      | 8563   | 94.0  | 9123   | 2  | BD105258  | BD105258 Sodium ch |
| 6      | 8563   | 94.0  | 9123   | 5  | AF225987  | AF225987 Homo sapi |
| 7      | 6395   | 70.2  | 6599   | 5  | HSA251507 | AJ251507 Homo sapi |

|    |        |        |      |        |          |                    |                    |
|----|--------|--------|------|--------|----------|--------------------|--------------------|
| 8  | 5169.8 | 56.7   | 6822 | 2      | AX401928 | AX401928 Sequence  |                    |
| 9  | 5169.8 | 56.7   | 6822 | 6      | RNSCIII  | Y00766 Rat mRNA fo |                    |
| 10 | 5033.4 | 55.2   | 5106 | 2      | AR448401 | AR448401 Sequence  |                    |
| 11 | 4279.8 | 47.0   | 8292 | 2      | AX805577 | AX805577 Sequence  |                    |
| 12 | 4271.2 | 46.9   | 8349 | 2      | AX164203 | AX164203 Sequence  |                    |
| 13 | 4271.2 | 46.9   | 8349 | 2      | AX164204 | AX164204 Sequence  |                    |
| 14 | 4213.8 | 46.3   | 6328 | 5      | HUMHBAX  | M94055 Human volta |                    |
| 15 | 4150.2 | 45.6   | 4183 | 5      | AB037777 | AB037777 Homo sapi |                    |
| 16 | 4117.6 | 45.2   | 4153 | 5      | AF035686 | AF035686 Homo sapi |                    |
| 17 | 4108.8 | 45.1   | 6018 | 2      | BD144094 | BD144094 GEFS + re |                    |
| 18 | 4084   | 44.8   | 4153 | 5      | AF035685 | AF035685 Homo sapi |                    |
| 19 | 3987.2 | 43.8   | 8131 | 2      | BD094360 | BD094360 Sodium ch |                    |
| 20 | 3987.2 | 43.8   | 8131 | 2      | BD105257 | BD105257 Sodium ch |                    |
| 21 | 3987.2 | 43.8   | 8131 | 5      | AF225985 | AF225985 Homo sapi |                    |
| 22 | 3949.6 | 43.4   | 8378 | 2      | AX164171 | AX164171 Sequence  |                    |
| 23 | 3914.4 | 43.0   | 8378 | 2      | AX164172 | AX164172 Sequence  |                    |
| 24 | 3884.6 | 42.6   | 8553 | 6      | RNSCPIIR | X03639 Rat brain m |                    |
| 25 | 3875.8 | 42.5   | 8552 | 6      | RATNACHI | M22254 Rattus norv |                    |
| 26 | 3870.2 | 42.5   | 5946 | 5      | AB098335 | AB098335 Homo sapi |                    |
| 27 | 3825   | 42.0   | 3975 | 2      | AX164268 | AX164268 Sequence  |                    |
| 28 | 3824.4 | 42.0   | 6046 | 5      | AY043484 | AY043484 Homo sapi |                    |
| 29 | 3819.2 | 41.9   | 5997 | 5      | AB093549 | AB093549 Homo sapi |                    |
| 30 | 3818.4 | 41.9   | 5997 | 2      | AX391130 | AX391130 Sequence  |                    |
| 31 | 3815.2 | 41.9   | 5997 | 2      | DD182524 | DD182524 Mutations |                    |
| c  | 32     | 3803.8 | 41.8 | 168493 | 5        | AC013463           | AC013463 Homo sapi |
|    | 33     | 3786.2 | 41.6 | 6030   | 5        | AB093548           | AB093548 Homo sapi |
|    | 34     | 3785.4 | 41.5 | 6030   | 2        | AX391140           | AX391140 Sequence  |
|    | 35     | 3784.8 | 41.5 | 5889   | 2        | AX391132           | AX391132 Sequence  |
|    | 36     | 3784.6 | 41.5 | 6030   | 2        | BD144093           | BD144093 GEFS + re |
|    | 37     | 3777.8 | 41.5 | 6027   | 2        | AX709969           | AX709969 Sequence  |
|    | 38     | 3751.8 | 41.2 | 5922   | 2        | AX391142           | AX391142 Sequence  |
|    | 39     | 3740   | 41.1 | 8398   | 6        | RNSCPIR            | X03638 Rat brain m |
|    | 40     | 3740   | 41.1 | 8399   | 6        | RATNACHI           | M22253 Rattus norv |
|    | 41     | 3436.8 | 37.7 | 8378   | 11       | AF123593           | AF123593 Cynops py |
|    | 42     | 3419   | 37.5 | 6348   | 2        | AR448089           | AR448089 Sequence  |
|    | 43     | 3419   | 37.5 | 6348   | 2        | AR531777           | AR531777 Sequence  |
|    | 44     | 3419   | 37.5 | 6371   | 2        | AR107905           | AR107905 Sequence  |
|    | 45     | 3419   | 37.5 | 6371   | 2        | AR483560           | AR483560 Sequence  |

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OM nucleic - nucleic search, using sw model

Run on: June 21, 2006, 12:57:28 ; Search time 38005 Seconds  
 (without alignments)  
 13407.103 Million cell updates/sec

Title: US-10-664-422A-65  
 Perfect score: 9110.8  
 Sequence: 1 accatagagtgaatctcaga.....aaattatataaggctaa 9112

Scoring table: IDENTITY\_NUC  
 Gapop 10.0 , Gapext 1.0

Searched: 48236798 seqs, 27959665780 residues

Total number of hits satisfying chosen parameters: 96473596

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : EST:  
 1: gb\_est1:  
 2: gb\_est3:  
 3: gb\_est4:  
 4: gb\_est5:  
 5: gb\_est6:  
 6: gb\_htc:  
 7: gb\_est2:  
 8: gb\_est7:  
 9: gb\_est8:  
 10: gb\_est9:  
 11: gb\_gss1:  
 12: gb\_gss2:  
 13: gb\_gss3:  
 14: gb\_gss4:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result | Query  |       |        |    |          | Description        |
|--------|--------|-------|--------|----|----------|--------------------|
| No.    | Score  | Match | Length | DB | ID       |                    |
| 1      | 3577.6 | 39.3  | 5994   | 14 | DQ050103 | DQ050103 Homo sapi |
| 2      | 3000   | 32.9  | 5963   | 14 | DQ050104 | DQ050104 Pan trogl |
| 3      | 2274.2 | 25.0  | 5943   | 14 | AY416499 | AY416499 Homo sapi |
| 4      | 2019.4 | 22.2  | 5710   | 14 | AY416500 | AY416500 Pan trogl |
| 5      | 1986.8 | 21.8  | 5666   | 14 | AY416501 | AY416501 Mus muscu |
| 6      | 1915.6 | 21.0  | 8452   | 6  | AK147254 | AK147254 Mus muscu |
| 7      | 1915.6 | 21.0  | 8452   | 6  | AK147517 | AK147517 Mus muscu |
| 8      | 1848.8 | 20.3  | 4675   | 6  | AK083220 | AK083220 Mus muscu |

|      |        |      |      |    |          |                    |
|------|--------|------|------|----|----------|--------------------|
| 9    | 1766.4 | 19.4 | 6096 | 14 | DQ052007 | DQ052007 Homo sapi |
| 10   | 1616   | 17.7 | 5933 | 6  | AK157866 | AK157866 Mus muscu |
| 11   | 1547   | 17.0 | 5751 | 14 | DQ052008 | DQ052008 Pan trogl |
| 12   | 1440   | 15.8 | 5046 | 14 | DQ042904 | DQ042904 Homo sapi |
| 13   | 1320.8 | 14.5 | 2306 | 6  | AK141113 | AK141113 Mus muscu |
| 14   | 1239   | 13.6 | 5046 | 14 | DQ042905 | DQ042905 Pan trogl |
| 15   | 1035.8 | 11.4 | 3043 | 6  | AK148881 | AK148881 Mus muscu |
| 16   | 1016.6 | 11.2 | 1689 | 6  | AK134744 | AK134744 Mus muscu |
| 17   | 939.6  | 10.3 | 2802 | 6  | AK032187 | AK032187 Mus muscu |
| 18   | 856.2  | 9.4  | 870  | 3  | BQ941318 | BQ941318 AGENCOURT |
| 19   | 773.8  | 8.5  | 2527 | 6  | AK158609 | AK158609 Mus muscu |
| 20   | 764.4  | 8.4  | 814  | 8  | CX165145 | CX165145 HESC2_25_ |
| 21   | 733    | 8.0  | 1762 | 6  | AK142068 | AK142068 Mus muscu |
| c 22 | 719.2  | 7.9  | 807  | 5  | CD623433 | CD623433 55050937J |
| 23   | 700.6  | 7.7  | 928  | 3  | BQ715936 | BQ715936 AGENCOURT |
| 24   | 681    | 7.5  | 799  | 14 | CT410732 | CT410732 Sus scrof |
| 25   | 675.4  | 7.4  | 881  | 12 | CC542775 | CC542775 CH240_424 |
| 26   | 666.4  | 7.3  | 801  | 5  | CJ468512 | CJ468512 CJ468512  |
| 27   | 660    | 7.2  | 735  | 2  | BI488967 | BI488967 603021693 |
| c 28 | 654.2  | 7.2  | 682  | 3  | BM681920 | BM681920 UI-E-EO1- |
| 29   | 649.2  | 7.1  | 785  | 9  | CX562753 | CX562753 UI-M-IB0- |
| 30   | 632.4  | 6.9  | 716  | 5  | CD623432 | CD623432 55050937H |
| 31   | 632    | 6.9  | 938  | 14 | CT220677 | CT220677 Sus scrof |
| 32   | 631.6  | 6.9  | 768  | 4  | CB520657 | CB520657 UI-M-GI0- |
| 33   | 625.8  | 6.9  | 689  | 7  | BF347024 | BF347024 602021819 |
| 34   | 617    | 6.8  | 673  | 8  | CR538717 | CR538717 DKFZp459B |
| 35   | 615    | 6.8  | 2343 | 6  | AK048407 | AK048407 Mus muscu |
| 36   | 614.6  | 6.7  | 637  | 1  | AV702029 | AV702029 AV702029  |
| 37   | 614.4  | 6.7  | 763  | 5  | CJ465576 | CJ465576 CJ465576  |
| 38   | 614    | 6.7  | 873  | 7  | BF527027 | BF527027 602039918 |
| 39   | 613.4  | 6.7  | 616  | 3  | BM728972 | BM728972 UI-E-EO1- |
| 40   | 606.8  | 6.7  | 972  | 8  | CN646516 | CN646516 ILLUMIGEN |
| 41   | 605    | 6.6  | 704  | 10 | DT895022 | DT895022 1478017 M |
| 42   | 603.2  | 6.6  | 753  | 5  | CJ465757 | CJ465757 CJ465757  |
| 43   | 594.8  | 6.5  | 775  | 8  | CX238600 | CX238600 NMA06245  |
| c 44 | 594.6  | 6.5  | 761  | 13 | DU437968 | DU437968 109842100 |
| 45   | 594.2  | 6.5  | 671  | 9  | DA224704 | DA224704 DA224704  |